A. ication No. 09/913,448 Filed: August 14, 2001

Group Art Unit: 1774

AMENDMENT TO THE CLAIMS

1-3. (Cancelled)

4. (Previously amended) A process according to claim 11, wherein the poly(carboxylic) acid and poly(carboxylic) acid anhydride are selected from the group consisting of saturated and unsaturated acyclic poly(carboxylic) acids, saturated and poly(carboxylic) acids, unsaturated cyclic poly(carboxylic) acids, hydroxy poly(carboxylic) acids, citric acid, poly(acrylic) acid, poly(methacrylic) 1,2,3,4-butanetetracarboxylic acid, maleic acid, citraconic acid, 1,2,3-propane-tricarboxylic acid, acid, itaconic all-cis-1,2,3,4-cyclopentanetetracarboxylic acid, acid, mellitic acid, oxydisuccinic acid, and thiodisuccinic acid.

the catalyst is selected from the group consisting of dihydrogen phosphates, hydrogen phosphates, phosphates, hypophosphites, alkali metal phosphites, alkali metal salts of polyphosphoric acids, carbonates, bicarbonates, acetates, borates, alkali metal hydroxides, aliphatic amines and ammonia, preferably selected from sodium hydrogen phosphate, sodium dihydrogen phosphate and sodium hypophosphite.

Filed: August 14, 2001 Group Art Unit: 1774

- 6. (Previously amended) A process according to claim 11, wherein the cyclodextrin is selected from the group consisting of α cyclodextrin, β -cyclodextrin and γ -cyclodextrin and wherein the cyclodextrin derivatives are selected from hydroxypropyl, methyl or acetyl derivatives of α -cyclodextrin, cyclodextrin and γ-cyclodextrin and inclusion complexes formed cyclodextrins cyclodextrin from said said or derivatives.
- 7. (Previously amended) A fiber having (a) hydroxide or (b) amine or (c) both hydroxide and amine functional groups, the fiber being bonded, via an ester or amide bond, to at least one molecule to form a structure comprising the repetition of a unit with general formula:

or

(COOH) x-y

where $2 \le y < x-2$; $x \ge 3$ and n is 1 or more, and in which:

rication No. 09/913,448
Filed: August 14, 2001
Group Art Unit: 1774

[Cell] represents the macromolecular chain of a natural or artificial cellulose fiber;

[Ker] represents the macromolecular chain of a natural
or artificial protein fiber;

[COOH] _{x-y}

[Ac]

represents the molecular chain of a poly(carboxylic) acid

[COOH] x-y

[Ac]

where at least two carboxylic acid functions (COOH) $_{y}$ have undergone esterification or esterification and amidation respectively and which carries at least one carboxylic acid function (COOH) $_{x-y}$ that has not undergone an esterification or amidation reaction; and

- [CD] represents the molecular structure of α -cyclodextrin, β -cyclodextrin or γ -cyclodextrin derivative.
- 8. (Original) A fiber or fiber-based material, wherein said fiber or fiber-based material is coated with a cross-linked copolymer

A. ication No. 09/913,448
Filed: August 14, 2001
Group Art Unit: 1774

composed of cyclodextrin(s) and/or cyclodextrin derivative(s) and at least one poly(carboxylic) acid wherein the structure comprises the repetition of a unit with general formula:

```
[[CD]-O-CO-[Ac]-CO-O]<sub>n</sub>
|
(COOH)<sub>x-v</sub>
```

where $2 \le y < x-2; \ x \ge 3$ and n is 1 or more, and in which: [Ac]- | (COOH)_{x-y} represents the molecular chain of a poly(carboxylic) acid [Ac] | (COOH)_x

where at least two carboxylic acid functions $(COOH)_y$ have undergone esterification and which carries at least one carboxylic acid function $(COOH)_{x-y}$ that has not undergone an esterification reaction; and

A ication No. 09/913,448
Filed: August 14, 2001
Group Art Unit: 1774

- [CD] represents the molecular structure of α -cyclodextrin, β -cyclodextrin, γ -cyclodextrin, a cyclodextrin derivative, preferably a hydroxypropyl, methyl or acetyl α -cyclodextrin, β -cyclodextrin or γ -cyclodextrin derivative, or an inclusion complex of said cyclodextrins or said cyclodextrin derivatives.
- 9. (Original)A fiber or fiber-based material according to claim 7, wherein the poly(carboxylic) acid is selected from saturated and unsaturated acyclic poly(carboxylic) acids, saturated and unsaturated cyclic poly(carboxylic) acids, aromatic poly(carboxylic) acids, hydroxy poly(carboxylic) acids, preferably selected from citric acid, poly(acrylic) acid, poly(methacrylic) acid, 1,2,3,4-butanetetracarboxylic acid, 1,2,3-propanetricarboxylic acid, aconitic acid, all-cis-1,2,3,4-cyclopentanetetracarboxylic acid, mellitic acid, oxydisuccinic acid, and thiodisuccinic acid.
- 10. (Original)A fiber or fiber-based material according to claim 7, containing an insecticide or repellent agent forming a complex with molecules of cyclodextrin(s) and/or cyclodextrin derivative(s).

Tication No. 09/913,448
Filed: August 14, 2001
Group Art Unit: 1774

11. (Currently amended) A process for treating a fiber
consisting of:

a. applying to impregnating said fiber with an aqueous solution

of a solid mixture to form a treated an impregnated fiber, said

solid mixture comprising

1. one or more materials from the group consisting of cyclodextrins, cyclodextrin derivatives, inclusion complexes of cyclodextrins, and inclusion complexes of cyclodextrin derivatives, and

2. one or more materials selected from the group consisting of poly(carboxylic) acids and poly(carboxylic) acid anhydrides;

b. drying said impregnated fiber at a temperature in the range of 40°C to 150°C to obtain a treated fiber;

c. heating said treated fiber to a temperature between 150-220C.;

ed. washing said treated fiber with water; and

 \underline{e} . drying said treated fiber.

12. (Previously added) The process of claim 11 wherein said fiber has been formed into a material selected from the group consisting of yarn, woven textile material, knitted textile

-7-

Filed: August 14, 2001 Group Art Unit: 1774

material, non-woven textile material, paper, leather and wood fiber-based material.

13. (Previously added) The process of claim 11 wherein said solid mixture further comprises a catalyst.

14. (Cancelled)

15. (Previously added) The process of claim 14 wherein said mixture further comprises a catalyst.

16. (Previously added) The process of claim 11 wherein said treated fiber is dried at a temperature of 40-150C before heating.

17. (Previously added) The process of claim 16 wherein said treated material is dried at a temperature between 90C and 110C.

18. (Previously added) The fiber of claim 7, wherein [CD] is selected from the group consisting of

(a) a hydroxypropyl, methyl or acetyl derivative of α -cyclodextrin,

(b) a hydroxypropyl, methyl or acetyl derivative of β -cyclodextrin,

-8-

ication No. 09/913,448
Filed: August 14, 2001
Group Art Unit: 1774

- (c) a hydroxypropyl, methyl or acetyl derivative of γ -cyclodextrin,
- (d) an inclusion complex of said cyclodextrins and
- (e) an inclusion complex of said cyclodextrin derivatives.
- 19. (Previously added) The fiber of claim 8, wherein [CD] is selected from the group consisting of
- (a) a hydroxypropyl, methyl or acetyl derivative of α -cyclodextrin,
- (b) a hydroxypropyl, methyl or acetyl derivative of β -cyclodextrin,
- (c) a hydroxypropyl, methyl or acetyl derivative of γ -cyclodextrin,
- (d) an inclusion complex of said cyclodextrins and
- (e) an inclusion complex of said cyclodextrin derivatives.
- 20. (Previously added) The fiber of claim 9 wherein said poly(carboxylic) acid is selected from the group consisting of Y*.